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(56) Documents Cited
GB 0289253 A WO 90/08068 A1 US 5472105 A
US 5350078 A US 3537498 A US 3536500 A

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(54) Abstract Title
Bottle with gripping recesses

(57) A bottle (1) has a hollow, elongated body defined by walls extending between a bottle bottom (4) and a bottle neck (5) and comprises four gripping recesses (6), each having a delimited area receding, inside the bottle, with respect to the walls (3). Preferably the bottle (1) is of substantially quadrilaterally shaped cross section and comprises ribs (8), preferably having a wave path. The bottle may be of 1.5 or 2 litre size.

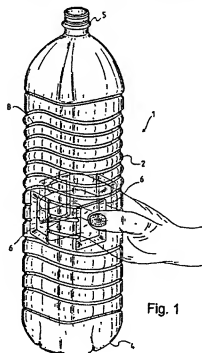


Fig. 1

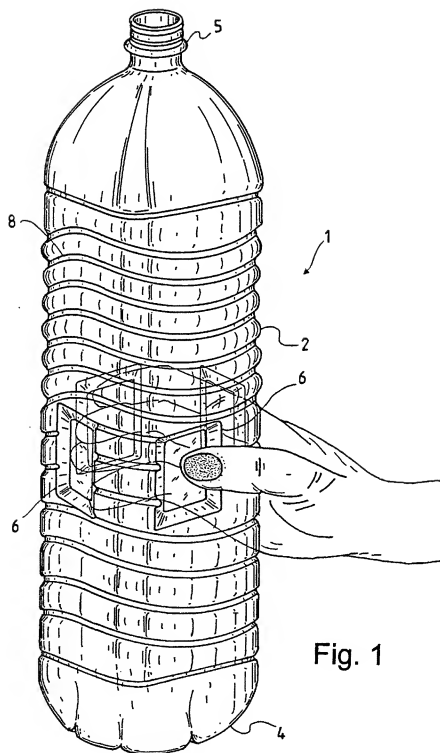


Fig. 1

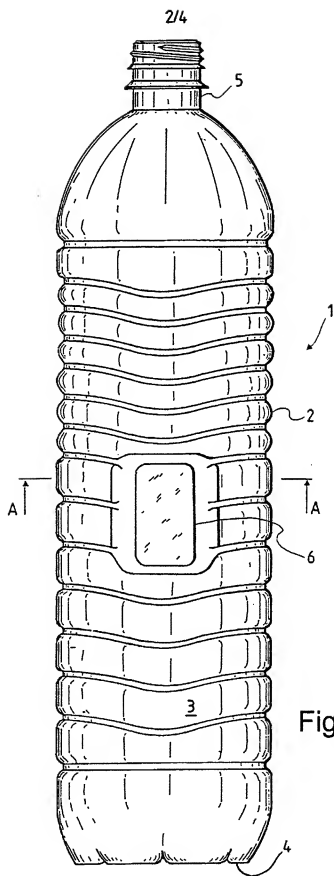


Fig. 2

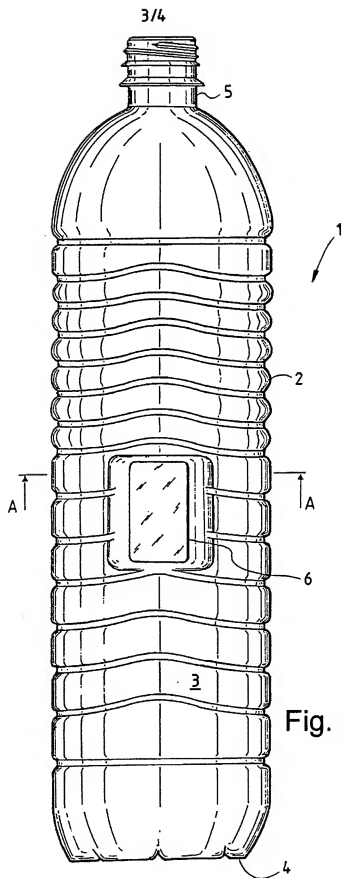


Fig. 3

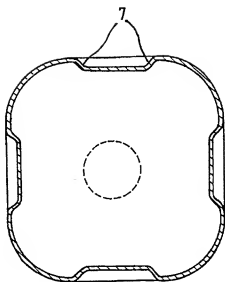


Fig. 4

BOTTLE WITH GRIPPING RECESSES

The present invention relates to a bottle with gripping recesses.

The bottles which are at the moment on the market, in particular those having a 1.5 or 2 liter size, do not have particular areas for enabling the holding of the bottle, except for a gripping recess in the substantially central region of the body of the bottle.

Notwithstanding said feature, it is often necessary to hold prior art bottles tight in order to avoid their slipping from the user's hand or even to use the other hand to hold them safely.

The present invention overcomes such prior art drawbacks, by providing a bottle having a hollow elongated body defined by walls extending between a bottle bottom and a bottle neck, the bottle comprising four holding recesses each having a delimited area receding, inside the bottle, also with respect to said walls.

The recesses are preferably placed in a central region of the elongated body.

Therefore, the main advantage is that the gripping, which is normally performed using the thumb and the forefinger, is performed in a firmer, easier and safer manner, without the need of holding the bottle too tight. In particular, the presence of four recesses enables the gripping of the bottle without the need for the user to orient the hand in case there is a lower number of recesses, e.g. two.

A further advantage with the provided number of recesses is that, in case of a lower number of recesses, there would be a reduced resistance to compression of the bottle when it is held, in particular in the region horizontally adjacent to the one where the recesses are situated.

The present invention will be illustrated herebelow by referring to a preferred embodiment thereof, explained by way of a non-limiting example. The annexed drawings will be referred to, wherein:

figure 1 shows a perspective view of the bottle when held by a user's hand;

figure 2 shows a front and rear view thereof;

figure 3 shows a side view thereof; and

figure 4 shows a partial cross section view thereof along the line A-A of figure 2.

With reference to figure 1, the bottle 1, preferably made of polyethylene terephthalate having substantially a 1.5 or 2.0 liter size, comprises a hollow elongated body 2. The elongated body 2 is defined by walls, e.g. four walls, providing it with a substantially quadrilateral shape when seen in a plan view. The walls extend between a shaped bottle bottom 4 and a bottle neck 5, the latter being provided with a thread for a

closure element. Also shown is a plurality of ribs 8 having a wave path. Such ribs are not only to make the bottle aesthetically pleasant but also to stiffen it.

The body 2 of the bottle comprises four gripping recesses 6, placed preferably centrally with respect to the elongated body 2, each one having a delimited area receding, inside the bottle, also with respect to the walls. In the view of the figure, one of the recesses 6 is being gripped by a thumb of a user's hand and a second recess is being gripped by two or three hand phalanxes of other fingers of the same hand. The preferred embodiment of the present invention provides that the four recesses are uniformly distanced therebetween. Moreover, the vertical extension of the recesses can be such as to allow the bottle to be gripped by at least two fingers of a user's hand.

The successive figures 2 and 3 show a front/rear and side view of the bottle according to the present invention respectively, from which its walls 3 can be better distinguished.

The successive figure 4 is a partial cross section view of the bottle, along the line A-A of figure 2. From said figure 4 it is possible to notice in greater detail how each of the recesses has an area which is not only limited, but also receding, inside the bottle, with respect to the walls. Said receding area is delimited by flared edges 7, in order to offer a smooth surface to the user's fingers, when the bottle is gripped. The area is such as to recede preferably in a remarkable way with respect to the surface of the single wall, for a distance equal to at least 5 mm and preferably equal to 8 mm, in order to better avoid the need of holding the bottle too tight.

The present invention has been up to now described with reference to one preferred embodiment thereof, given as non-limiting example. Therefore, it is to be understood that various and different modifications can be carried out, without departing thereby from the protective scope of the invention.

CLAIMS:

1. A bottle (1) comprising a hollow elongated body (2) defined by walls (3) extending between a bottle bottom (4) and a bottle neck (5), the bottle being characterised in that it comprises four gripping recesses (6) each of said recesses having a delimited area receding, inside the bottle, also with respect to said walls (3).
2. The bottle according to claim 1, characterised in that said gripping recesses (6) are centrally placed with respect to the elongated body (2).
3. The bottle according to any of the preceding claims, characterised in that said delimited area recedes inside the bottle for a distance equal to at least 5 mm.
4. The bottle according to claim 3, characterised in that said distance is equal to 8 mm.
5. The bottle according to any of the preceding claims, characterised in that said four gripping recesses (6) are uniformly distanced therebetween.
6. The bottle according to any of the preceding claims, characterised in that said hollow elongated body (2) is substantially quadrilaterally shaped when seen in cross section.
7. The bottle according to any of the preceding claims, characterised in that said delimited area is rectangularly shaped and delimited by flared edges (7).
8. The bottle according to any of the preceding claims, characterised in that said delimited area is shaped in such a way as to allow at least two fingers of a user's hand to grip the bottle.
9. The bottle according to any of the preceding claims, characterised in that it further comprises a plurality of ribs (8).
10. The bottle according to claim 9, characterised in that said ribs (8) have a wave path.
11. The bottle according to any of the preceding claims, characterised in that it has substantially a 1.5 liter size.

12. The bottle according to any of the preceding claims 1 to 10, characterised in that it has substantially a 2.0 liter size.



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Claims searched: 1 to 12

Examiner: Mike Henderson
Date of search: 20 November 1998

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.P): B8D (DCW3 DCW4 DCW10 DCD DCE)

Int Cl (Ed.6): B65D 1/02 23/10

Other: ONLINE:WPI

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	GB 289253 (MARKS) (Whole disclosure relevant)	1 to 9,11 & 12
X	WO 90/08068A1 (KINDERGRIP INTERNATIONAL INC) (Whole disclosure relevant)	1 to 8,11 & 12
X	US 5472105 (KRISHNAKUMAR et al) (Col.4 lines 45-55 particularly relevant)	1 to 9,11 & 12
X	US 5350078 (POTTS et al) (Whole disclosure relevant)	1 to 8,11 & 12
X	US 3537498 (AMAND) (Figs 4 to 9 particularly relevant)	1 to 8,11 & 12
X	US 3536500 (CLEEREMAN et al) (Whole disclosure relevant)	1 to 9,11 & 12

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

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